SINGAPORE-MIT ALLIANCE
Graduate Fellowship
Programme Briefing
Established: November 1998

**Alliance Universities:**
- National University of Singapore (NUS)
- Massachusetts Institute of Technology (MIT)
- Nanyang Technological University (NTU)

**Aim:**
To create world-class graduate educational programmes and high-impact research initiatives.
Why SMA?

1. A first rate full-time education
   - interaction with MIT
   - modern, innovative, specialised and relevant degrees
   - experience of entrepreneurship culture at MIT

2. Latest technology in interactive distance education
   - application sharing
   - real-time and archived lectures
   - web-based experiments

3. Top talent in the region
   - network of alumni comprising the very best talent

4. Fast growing economy in Singapore
   - well placed for jobs, business opportunities & careers in R&D
5. The two degrees are complementary; they strengthen the in-depth knowledge in a specific discipline.

6. The course is more rigorous. Fundamental and application-based, the education and training received better equip you to work with the industry.

7. SMA awards a Graduate Fellowships to all who are admitted.
Interactive Technology
World Class Facilities
The following programmes are offered:

Advanced Materials for Micro- and Nano-Systems (AMM&NS)

Computational Engineering (CE)

Manufacturing Systems and Technology (MST)

Computation and Systems Biology (CSB)

Chemical and Pharmaceutical Engineering (CPE)
## Degrees Offered and Candidature

<table>
<thead>
<tr>
<th>Degree Award</th>
<th>Dual Degrees</th>
<th>Single Degree</th>
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<tbody>
<tr>
<td>Advanced Materials for Micro- and Nano-Systems (AMM&amp;NS)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Computational Engineering (CE)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Manufacturing Systems &amp; Technology (MST)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Chemical and Pharmaceutical Engineering (CPE)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Computation and Systems Biology (CSB)</td>
<td>-</td>
<td>-</td>
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Benefits

- Stipend of S$1,500/S$2,000 per month
- Fully-subsidised tuition fee
- Bond-free SMA Graduate Fellowship
- Internship with industry
- Residency at MIT
- Additional allowance of up to US$6,000 during residency at MIT - defray cost of
  a) GRE (US$160)* and TOEFL (up to US$170)*
  b) MIT application fee of US$70
  c) Housing & living expenses at MIT
  d) SMA acceptance fee of S$50

- Graduate Student Tutor/Teaching Assistant appointments for Ph.D. students
- Top-up grant of S$500 per month for Ph.D. students
- SMA certificate for direct PhD degree
- Invitation for Permanent Residence
- Individual cubicle with PC each
- Interaction and activities
- Job placement

*subject to changes
Student Activities

- Students on a tour of Boston city
- Students at bowling and BBQ event
- Students on a Night Cycling Trip
- Students celebrating Mid Autumn Festival in Singapore
Student Activities

Career Talk cum Farewell Lunch

Students in front of Killian Court, MIT

Having fun at the telematch games

Amazing Heritage Race
The Grand Finale

Commencement □ Convocation

2006
• High level professional and research positions
• World-renowned and technologically advanced companies and Research Institutes & Centres
Programme Co-Chairs

AMM&NS

Prof W K Choi  Prof C Thompson

CE

Prof B C Khoo  Prof J Peraire
Programme Co-Chairs

MST
- Prof C Y Yue
- Prof D Hardt

CPE
- Prof R Rajagopalan
- Prof Bernhardt Trout
Programme Co-Chairs

CSB

Prof C L Hew

Prof P Matsudaira
1st semester : July – Aug
2nd semester : September – January
3rd semester : January – June
Admission into SMA

- 1st or 2nd Class (Upper) Honours Degree or its equivalent
- Good GRE* score
- Good TOEFL*^ score
- Strong recommendations
- Publications
- Participation in conferences
- Leadership qualities
- Co-curricular activities

Guidelines
GRE – 1200 for Verbal & Quantitative; 4.5 for Analytical
TOEFL – 580-600 paper-based/ 237-250 computer-based/ minimum of 85 for internet based

^Applicants with first degree from NUS or NTU are generally waived; however applicants may be required by MIT host departments to submit scores, on a case-by-case basis.
Admission into SMA

Timelines

Submit Application : Between January and March

Offer made : March

Accept offer : April
• Applicable ONLY to the Masters degrees awarded by MIT.
• Admission criteria and timelines follow that of the MIT department hosting the programme.
• Use MIT department’s application materials to apply.
• Information is linked to the SMA website.
<table>
<thead>
<tr>
<th>Programme</th>
<th>Singapore*</th>
<th>MIT</th>
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</thead>
<tbody>
<tr>
<td>AMM&amp;NS</td>
<td>NUS</td>
<td>Department of Materials Science and Engineering</td>
</tr>
<tr>
<td>CE</td>
<td>NUS</td>
<td>Department for Computation Design and Optimization</td>
</tr>
<tr>
<td>MST</td>
<td>NTU</td>
<td>Department of Mechanical Engineering</td>
</tr>
<tr>
<td>CPE</td>
<td>NUS</td>
<td>Department of Chemical Engineering</td>
</tr>
<tr>
<td>CSB</td>
<td>NUS</td>
<td>Computational and Systems Biology Initiative</td>
</tr>
</tbody>
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* Apply using SMA application materials
Residency at MIT for Ph.D. students is generally after passing the Ph.D. Qualifying Examinations

For AMM&NS, direct Ph.D. students are resident at MIT together with the dual degree students

<table>
<thead>
<tr>
<th>Programme</th>
<th>Term at MIT (for Dual Degree Students)</th>
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<tbody>
<tr>
<td>AMM&amp;NS</td>
<td>Sep - Dec 08</td>
</tr>
<tr>
<td>CE</td>
<td>Feb - Aug 09</td>
</tr>
<tr>
<td>MST</td>
<td>Sep - Dec 08</td>
</tr>
<tr>
<td>CPE</td>
<td>Sep - Dec 08</td>
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Application Fee for MIT Admissions Package
The application fee is currently US$70.

Acceptance Fee for SMA
The acceptance fee is S$50 (excluding GST)

Fee is payable by candidates
Achievements & Awards

1. Materials Research Society Graduate Award – Silver Award, Materials Research Society Spring Meeting, 2003, San Francisco, USA


Presented to: Gan Chee Lip, AMM&NS Ph.D., 1999/2000 intake

Materials Research Society Graduate Student Award
Presented to: Meng Ying, AMM&NS Ph.D., 2000/2001 intake
Achievements & Awards

2nd runner-up, first Young Persons’ World Lecture Competition, Institute of Materials, Minerals and Mining (IOM3), 2005, London

Presented to: Eric Kan Wing Hong, AMM&NS Ph.D., 2001/2002 intake

Best Poster Award, Symposium J of International Conference on Materials for Advanced Technology, 2005

Presented to: Zang Keyan, AMM&NS Ph.D., 2001/2002 intake
Achievements & Awards

Honourable Mention, George E. Nicholson Student Paper Competition, INFORMS Annual Meeting, 2003, Atlanta, USA
First time in 30 years a student from an Asian school was among the prize winners.
Presented to: Karthik Natarajan, HPCES Ph.D., 1999/2000 intake

2nd place twice in the George E. Nicholson Student Paper Competition, INFORMS, 2002 and 2004, USA
Only individual to have ever won the top awards (first or second place) more than once
Presented to: Melvyn Sim Soon Suan, HPCES S.M., 1999/2000 intake
Detailed information on application will be available on the SMA website:

http://www.sma.nus.edu.sg
or
http://web.sma.nus.edu.sg

For enquiries, please e-mail to:
smart@nus.edu.sg

Tel: (65) 6516 4787
Fax: (65) 6775 2920

Thank you